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EXAMINER	
MITCHELL, GREGORY W	
ART UNIT	**PAPER NUMBER**
1617	

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/881,213	SANDBERG ET AL.	
	Examiner	Art Unit	
	Gregory W. Mitchell	1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 January 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7,9-11 and 21-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7,9-11 and 21-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to the Remarks and Amendments filed January 26, 2005. Claims 1, 4, 9 and 11 have been amended. Claim 6 has been cancelled. Claims 1-5, 7, 9-11 and 21-24 are pending and are examined herein.

The rejections of the Office Action dated August 26, 2004 are hereby withdrawn. The following rejections now apply.

Claim Objections

Claim 10 is objected to because of the following informalities: following "trioxa-" there is an out of place comma. Appropriate correction is required.

Claim 11 is objected to because there are no commas separating the various compounds claimed therein. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is rejected as indefinite because the skilled artisan would not be apprised of the metes and bounds of the term "derivatives or fragments thereof having essentially

the same binding function to biotin as avidin or streptavidin." It is unclear (1) what derivatives may be useful (none are disclosed in the specification); (2) what fragments may be useful (none are disclosed in the specification); and (3) what is meant by "essentially the same". Furthermore, it is unclear whether or not the fragment can be derivatized and still meet the claims. It is unclear whether or not a compound prepared synthetically but also, theoretically, capable of being formed via fragmentation or derivatization of avidin or streptavidin would meet the claims. It is unclear how closely related a "derivative" must be to the original avidin or streptavidin, especially considering the fact that the biotin binding function of said derivative can be altered to some unknown degree, so long as it remains "essentially the same".

Claim 1 is also rejected as indefinite because it is unclear what Applicant intends to encompass by a linker defined as representing "ether, thioether or amine functionalities". Examiner is unsure what it means to represent a functionality. Are the linkers limited to ethers, thioethers and amines, or not? Furthermore, does the term "functionality" indicate that the amine could form an amide in the product described by the formula in claim 1? Does the term "amine" indicate that the amine is in the backbone of the linker (i.e. a 2° amine) or could the linker be hydrocarbon substituted with an amine?

Claim 11 is rejected because it is unclear what the compound at the top of left side of page 6 in the claims filed January 26, 2005 is meant to convey. The compound

clearly is not within the scope of the compounds claimed in claim 1. Furthermore, the compound is not identified with a compound number, as are all other compounds in the claim. The claims is also indefinite due to the arrows shown below some of the compounds (see, e.g., **9** and **10**), it is unclear whether all compounds are meant to be covered or just the unprotected amines. Are the tBoc protected compounds encompassed as well?

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for specific trifunctional crosslinking moieties, does not reasonably provide enablement for all moieties which would fall within the scope of the genus described by trifunctional crosslinking moieties. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

The instant specification fails to provide information that would allow the skilled artisan to fully practice the instant invention without ***undue experimentation***. Attention is directed to *In re Wands*, 8 USPQ2d 1400 (CAFC 1988) at 1404 where the court set forth the eight factors to consider when assessing if a disclosure would have required undue experimentation. Citing *Ex parte Forman*, 230 USPQ 546 (BdApls 1986) at 547,

the court recited eight factors:

(1) the nature of the invention; (2) the state of the prior art; (3) the relative skill of those in the art; (4) the predictability or unpredictability of the art; (5) the breadth of the claims; (6) the amount of direction or guidance presented; (7) the presence or absence of working examples; and (8) the quantity of experimentation necessary.

(1). ***The Nature of the Invention***:

The rejected claim(s) is/are drawn to an invention which pertains to a method of conditioning utilzing compounds characterized by the formula found in claim 1 wherein the core (d) can be *any* trifunctaion crosslinking moiety.

(2). ***Breadth of the Claims***:

The complex nature of the subject matter of this invention is greatly exacerbated by the breadth of the claims. The claims encompass a method comprising the use of a compound comprising *any* trifunctional crosslinking moiety. The nature of the invention is complex in that it potentially encompasses any trifunctional crosslinking moiety, regardless of size, shape, etc.

(3). ***Guidance of the Specification***:

The guidance given by the specification as to what types of trifunctional crosslinking moiety would be useful in a method of the instant invention is limited. Applicant discloses tri-substituted phenyl compounds as trifunctional crosslinking

moieties useful in the instant invention. The specification does not teach that the scope of the invention is limited to these trifunctional crosslinking moieties, however.

(4). ***Working Examples***:

Applicant shows various tri-substituted phenyl compounds as trifunctional crosslinking moieties useful in the instant invention.

(5). ***State/Predictability of the Art***:

The state of the art regarding trifunctional crosslinking moieties is advanced. It is noted, however, that *any* compound capable of binding to three linkers as herein claimed would meet the claims. Accordingly, a tri-substituted buckeyball could meet the limitations of the instant claims. Such large and obviously non-functional examples are not what renders the instant claims un-enabled, however. It is noted that Applicant goes to great lengths to describe the importance of the length of the linkers defined as *a* and *b* but does not similarly limit *d*. Accordingly, the state of the art regarding what core would be useful in the instant invention would be low.

It is well established that "the scope of enablement varies inversely with the degree of unpredictability of the factors involved." See *In re Fisher*, 427 F.2d 833, 839 (1970). In the instant case, the instant claimed invention is highly unpredictable since one skilled in the art cannot fully describe the genus, visualize or recognize the identity of the members of the genus, by structure, formula, or chemical name, of the claimed subject matter. Hence, in the absence of fully recognizing the identity of the members

of the genus herein, one of skill in the art would be unable to fully predict possible compounds operative in the method claimed.

(6). ***The Quantity of Experimentation Necessary***:

The skilled artisan would not be aware what type of trifunctional crosslinking moieties would be useful in the instant invention. For example at what size does the trifunctional crosslinking moiety become inoperable? Would a tri-substituted naphthalene be useful? What about a tri-substituted anthracene? Does shape matter to the operability of the trifunctional crosslinking moiety? Applicant has only addressed working examples wherein the trifunctional crosslinking moiety is planar. What if the trifunctional crosslinking moiety is tetrahedral? Applicant has only addressed working examples wherein the trifunctional crosslinking moiety is substituted 1,3,5 on the phenyl ring. What if the substitution was 1, 2, 3? Would the trifunctional crosslinking moiety still be operative?

Accordingly, the specification fails to provide sufficient support of the broad use of any group represented by "trifunctional crosslinking moiety." As a result, one of skill in the art would be forced to perform an exhaustive search for the embodiments of any compound having the *d* group recited in the instant claim suitable to practice the claimed invention.

Genetech, 108 F.3d at 1366 states that "a patent is not a hunting license. It is not a reward for search, but compensation for its successful conclusion" and "[p]atent

protection is granted in return for an enabling disclosure of an invention, not for vague intimations of general ideas that may or may not be workable."

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-5, 7, 9 and 21-24 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for specific toxin binding moieties, such as biotin, does not reasonably provide enablement for *any* toxic binding moiety. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

The recitation, "toxic binding moiety," is seen to be merely functional language.

The instant specification fails to provide information that would allow the skilled artisan to fully practice the instant invention without ***undue experimentation***. Attention is directed to *In re Wands*, 8 USPQ2d 1400 (CAFC 1988) at 1404 where the court set forth the eight factors to consider when assessing if a disclosure would have required undue experimentation. Citing *Ex parte Forman*, 230 USPQ 546 (BdApls 1986) at 547, the court recited eight factors:

(1) the nature of the invention; (2) the state of the prior art; (3) the relative skill of those in the art; (4) the predictability or unpredictability of the art; (5) the breadth of the claims;

(6) the amount of direction or guidance presented; (7) the presence or absence of working examples; and (8) the quantity of experimentation necessary.

(1). ***The Nature of the Invention***:

The rejected claim(s) is/are drawn to an invention which pertains to a method of conditioning a diagnostic device with a compound comprising a toxic binding moiety.

(2). ***Breadth of the Claims***:

The complex nature of the subject matter of this invention is greatly exacerbated by the breadth of the claims. The claims encompass a method of conditioning a diagnostic device with a compound comprising the structure set forth in claim 1 and comprising *any* toxic binding moiety. The nature of the invention is complex in that it potentially encompasses any toxic binding moiety.

(3). ***Guidance of the Specification***:

The guidance given by the specification as to what types of toxic binding moiety would be useful in a method of the instant invention is limited. Applicant discloses biotin and a few other moieties (see, e.g. pg. 21 of Applicant's specification) as toxic binding moieties useful in the instant invention. The specification does not teach that the scope of the invention is limited to these toxic binding moieties, however.

It is further noted that the claims attempt to further limit the scope of the claims by the function of the compound as opposed to the structure of the compound. Claim 3

is drawn to toxic binding moieties which may include a molecule that is capable of binding various components, including monoclonal antibodies, including fragments or engineered counterparts thereof. While these claims may actually limit the types of compounds that may be used in the instant invention, one of ordinary skill in the art would not be apprised of how these limitations limited the scope of the structure of the compounds useful therein. Furthermore, the skilled artisan would have to undergo undue experimentation to not only determine which toxic binding moieties that may be encompassed by the claims, but would also be subjected to the undue expermentation of determining, for example, monoclonal antibodies, including fragments or engineered counterparts thereof. Therefore, not only would one of ordinary skill in the art not be apprised of the scope of the generic invention, but would not be apprised of the limitations of the dependant claims even if the if the metes and bounds of the independent claim 1 were well defined and enabled.

It is further noted that the claims attempt to further limit the scope of the claims by the function of the compound as opposed to the structure of the compound. Claim 7 is drawn to toxic binding moieties which may include a molecule that is capable of binding various components including *any exogenous component that is or* ***could be*** *involved in the disease, disorder or medical incompatability.* While these claims may actually limit the types of compounds that may be used in the instant invention, one of ordinary skill in the art would not be apprised of how these limitations limited the scope of the structure of the compounds useful therein. Furthermore, the skilled artisan would have to undergo undue experimentation to not only determine which toxic binding

moieties that may be encompassed by the claims, but would also be subjected to the undue expermentation of determining, for example, *any exogenous component that is or **could be** involved in the disease, disorder or medical incompatability*. Therefore, not only would one of ordinary skill in the art not be apprised of the scope of the generic invention, but would not be apprised of the limitations of the dependant claims even if the if the metes and bounds of the independent claim 1 were well defined and enabled.

It is further noted that the claims attempt to further limit the scope of the claims by the function of the compound as opposed to the structure of the compound. Claim 9 is drawn to toxic binding moieties which may include a molecule that is capable of binding various components including *any* natural or synthetic toxin. While these claims may actually limit the types of compounds that may be used in the instant invention, one of ordinary skill in the art would not be apprised of how these limitations limited the scope of the structure of the compounds useful therein. Furthermore, the skilled artisan would have to undergo undue experimentation to not only determine which toxic binding moieties that may be encompassed by the claims, but would also be subjected to the undue expermentation of determining, for example, *any* natural or synthetic toxin. Therefore, not only would one of ordinary skill in the art not be apprised of the scope of the generic invention, but would not be apprised of the limitations of the dependant claims even if the if the metes and bounds of the independent claim 1 were well defined and enabled.

Functional language at the point of novelty, as herein employed by Applicants, is admonished in *University of California v. Eli Lilly and Co.* 43 USPQ2d 1398 (CAFC,

1997) at 1406: stating this usage does "little more than outline goal appellants hope the recited invention achieves and the problems the invention will hopefully ameliorate." The CAFC further clearly states "[A] written description of an invention involving a chemical genus, like a description of a chemical species, requires a precise definition, such as by structure, formula [or] chemical name, of the claimed subject matter sufficient to distinguish it from other materials" at 1405 (emphasis added), and that "It does not define any structural features commonly possessed by members of the genus that distinguish from others. One skilled in the art therefore cannot, as one can do with a fully described genus, visualize or recognize the identity of the members of the genus. A definition by function, as we have previously indicated, does not suffice to define the genus ..." at 1406 (empahasis added).

In the instant case, "toxic binding moiety," recited in the instant claims is purely a functional distinction. Hence, these functional recitations read on any compounds that might have recited functions. However, the specification merely provides a limited number of examples of compounds for the various kinds of functional compounds possible.

Thus, Applicant's functional language at the points of novelty fail to meet the requirements set forth under 35 U.S.C. 112, first paragraph. Claims employing functional language at the exact point of novelty, such as Applicant's, neither provide those elements required to practice the inventions, nor "inform the public during the life of the patent of the limited monopoly asserted." *General Electric Co. v. Wabash Appliance Corp.* 37 USPQ at 468 (US 1938).

(4). ***Working Examples***:

As discussed above, Applicant has set forth a few moieties which are deemed to fall within the scope of the term "toxic binding moiety", e.g. biotin and the moieties disclosed on p. 21 of Applicant's specification.

(5). ***State of the Art***:

The state of the art regarding specific toxic binding moieties is well developed, but the state of the art regarding *all* toxic binding moieties for any conceivable toxin or *possible* toxin (see claim 7) is underdeveloped.

(6). ***Predictability of the Art***:

The invention is directed to a method of conditioning a device comprising a compound with a toxic binding moiety in general, wherein the structure of those compounds is limited only by the function of the compounds. It is well established that "the scope of enablement varies inversely with the degree of unpredictability of the factors involved," and physiological activity is generally considered to be an unpredictable factor. See *In re Fisher*, 427 F.2d 833, 839 (1970). In the instant case, the instant claimed invention is highly unpredictable since one skilled in the art cannot fully describe the genus, visualize or recognize the identity of the members of the genus, by structure, formula, or chemical name, of the claimed subject matter, as discussed above in *University of California v. Eli Lilly and Co.* Hence, in the absence of

fully recognizing the identity of the members of the genus herein, one of skill in the art would be unable to fully predict which of any compounds would have the claimed functional properties described as comprising a "toxic binding moiety".

(7). ***The Quantity of Experimentation Necessary***:

The specification fails to provide sufficient support of the broad use of any copound represented by a "toxic binding moiety." As a result, one of skill in the art would be forced to perform an exhaustive search for the embodiments of any compounds having the function recited in the instant claim suitable to practice the claimed invention.

Genetech, 108 F.3d at 1366 states that "a patent is not a hunting license. It is not a reward for search, but compensation for its successful conclusion" and "[p]atent protection is granted in return for an enabling disclosure of an invention, not for vague intimations of general ideas that may or may not be workable."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5, 7, 9-11 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stayton et al. (USPN 6413934) in view of both Wilbur et al. (WO 97/29114) and Ribi et al. (USPN 5491097).

Stayton et al. teaches streptavidin derivatives containing a biotin binding domain and a specific binding domain (i.e. a secondary functional domain), which binds a compound of interest, as useful for diagnostic purposes in devices such as vascular devices. The streptavidin derivatives are taught to be immobilized on a biotinylated substrate (via the biotin binding domain). The specific binding domain of the streptavidin derivative then captures the compound of interest. See col. 10, lines 23-67. Stayton et al. teaches that streptavidin derivatives were used, specifically, because they are known to be a powerful biotin-binding protein and that the ability to bind biotin tightly makes the biotin-streptavidin binding affinity essentially irreversible under normal physiological conditions (col. 1, lines 18-33; col. 3, lines 34-40). Stayton et al. does not disclose a method using the compounds claimed, an extracorporeal device or that the biotin binding domain consists of avidin or streptavidin, specifically.

Wilbur et al. teaches the biotin containing compounds as instantly claimed (see, e.g., pp. 29-34). The compounds are taught to include a functional moiety useful for diagnostic purposes (Abstract). Linkers comprising hydroxyl functionalities are taught (p. 17, lines 20-23). Biotin sulfones are taught (p. 6, **3**). The compounds are taught to comprise at least a biotin moiety and another moiety, which may be another biotin moiety, a reactive moiety or a functional moiety (p. 5, lines 18-20; p. 9, lines 14-24). For the trifunctional cross-linking moiety 5-amino-1,3-dicarboxybenzene, see, e.g., p. 18,

23. For the linker 4,7,10-trioxa-13-tridecanediamine and biotin as the binder, see, e.g., p. 31, **48**.

Ribi et al. teaches that biotin binding surfaces are known to be comprised of streptavidin and avidin (col. 7, lines 23-29).

It would have been obvious to one of ordinary skill in the art to replace the steps of (1) biotinylating the biotin binding domain of a diagnostic device and (2) binding the streptavidin derivative to the biotinylated substrate of Stayton et al. with the single step of biotinylating the biotin binding domain of a device with the biotin compounds of Wilbur et al. because (1) Stayton et al. and Wilbur et al. are both directed to inventions wherein biotin is connected to a second functional moiety; (2) the goal of Stayton et al. is to transform a biotin binding surface into a functionalized surface capable of capturing target compounds other than biotin; and (3) Wilbur et al. teaches a compound capable of binding to a biotin binding surface while also leaving a functional moiety free. One would have been motivated to substitute the biotin-streptavidin complex of Stayton et al. with the compounds of Wilbur et al. because, as is shown by the teachings of Stayton et al. and Wilbur et al., the two are known in the art to be interchangeable agents comprising biotin on one side and a functionalized moiety on the other. Furthermore, one would have been motivated to substitute the complex of Stayton et al. with the compounds of Wilbur et al. because Stayton et al. teaches that the advantage of using streptavidin derivatives on a biotinlylated substrate is that streptavidin is known to have a strong affinity for biotin. Accordingly, it would be of a greater advantage to utilize a system wherein the interaction between the biotin and the functionalize moiety is

actually achieved via covalent bonding. Finally, one would have been motivated to substitute the complex of Stayton et al. with the compounds of Wilbur et al. because doing so would reduce the number of steps required to functionalize the surface in the manner desired.

It would have been obvious to one of ordinary skill in the art to utilize a device wherein the biotin binding surface containing streptavidin or avidin as the biotin binding molecules because Ribi et al. teaches that it is known in the art to prepare biotin binding surfaces in such a manner. One would have been motivated to specifically utilize streptavidin or avidin as the biotin binding molecules because Stayton et al. teaches a biotin binding domain, generally, and a biotin binding domain comprising streptavidin or avidin molecules is within the scope of the genus taught by Stayton et al.

It is noted that the skilled artisan would recognize that a diagnostic device must, necessarily, be either extracorporeal or implanted and the skilled artisan would have found it obvious to utilize the method of the combined references in either extracorporeal or implanted devices because Stayton et al. teaches diagnostic devices, generally.

It is further noted that the binding affinity of a molecule is a property of said molecule. Accordingly, since Wilbur et al. teaches the same compounds as instantly claimed, it is Examiner's position that, absent evidence to the contrary, the compounds will have the same binding affinities as instantly claimed. A product and its properties are inseparable. *In re Papesch*, 315 F.2d 381, 137 USPQ 43 (CCPA 1963).

Response to Arguments

Applicant's arguments with respect to claims 1-5, 7, 9-11 and 21-24 have been considered but are moot in view of the new ground(s) of rejection, but are address, as applicable, below.

Applicant's arguments that the definition of the linker is not indefinite are not persuasive for the reasons set forth above.

Applicant's arguments that the phrase "derivatives or fragments thereof having essentially the same binding function to biotin as avidin or streptavidin" is not indefinite are not persuasive for the reasons set forth above.

Applicant's arguments a "trifunctional crosslinking moiety" is enabled is not persuasive for the reasons set forth above.

Applicant's arguments that "Wilbur specifically teaches it is important that the distance between the two biotin moieties be long enough (> 15 Å) to bind two proteins, but short enough (< 20 Å), such that two biotins will not bind the same avidin or streptavidin molecule" is not persuasive. Examiner points out that the same compounds as claimed herein are exemplified in Wilbur et al. Furthermore, Examiner points out that Applicant fails to address the relevant teaching of Wilbur et al. Applicant's attention is directed to Wilbur et al. at page 29 wherein it is specifically disclosed that "the distance between each biotin moiety in the biotin trimer is preferably from about 20 to about 50 Å", within the scope of the linker lengths are herein claimed.

Applicant's arguments that Wilbur et al. does not teach a method as instantly claimed is not persuasive in view of the new grounds of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory W Mitchell whose telephone number is 571-272-2907. The examiner can normally be reached on M-F, 8:30 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gwm

SREENI PADMANABHAN
SUPERVISORY PATENT EXAMINER